

JANUARY, 2003

James E. McGreevey,
Governor



Clifton R. Lacy, M.D.,
Commissioner

NJ Communi-CABLE

NJ Included in Multi-State Listeriosis Outbreak

By: Michelle Malavet, MS, Michal Gerwel, MD, Infectious & Zoonotic Disease Program

A multi-state outbreak of listeriosis occurred in eight states in the Northeastern United States during the summer and fall of 2002. The outbreak was first identified in the Philadelphia, Pennsylvania (PA) area. Subsequent cases matching the outbreak strain were identified in surrounding states, including New Jersey, through the use of a DNA fingerprinting technology known as pulsed-field gel electrophoresis (PFGE). The New Jersey Department of Health and Senior Services (NJDHSS) began enhanced surveillance for listeriosis cases in response to the identification of cases in PA and surrounding states. The NJDHSS has identified 29 cases of listeriosis diagnosed between July 1 and November 30, 2002. Five of these cases have been linked by PFGE to the outbreak.

Listeriosis is an uncommon but potentially serious foodborne disease caused by the bacterium *Listeria monocytogenes*. The disease can be life threatening to certain high-risk individuals including the elderly and those with weakened immune systems. It can also cause miscarriages and stillbirths in pregnant women. There are approximately 2,500 cases of listeriosis reported in the U.S. annually. Approximately 500 of these cases result in death. New Jersey typically receives 25-30 reports of the disease per year.

The cases identified during the Northeast outbreak were epidemiologically linked to sliceable ready-to-eat turkey products through the gathering of food histories from case patients. Personnel from the NJDHSS Communicable Disease Service and Food and Drug Safety Program participated in the investigation and trace-back activities in conjunction with the Centers for Disease Control and Prevention (CDC) and the United States Department of Agriculture (USDA). Local health departments and regional epidemiologists throughout

New Jersey were instrumental in gathering information and assisting in the trace-back activities.

As a result of the investigation, two production plants, the Pilgrim's Pride plant located in Franconia, PA, and the Jack Lambersky Poultry Company plant located in Camden, NJ, have been implicated as possible sources of the outbreak. Both companies have voluntarily recalled suspect ready-to-eat poultry products. A complete list of recalled products can be viewed at www.fsis.usda.gov.

As of November 30, 2002, a total of 54 listeriosis cases have been linked to the outbreak strain in the Northeast. The majority of these cases were hospitalized, there have been eight deaths, and three pregnant women have had miscarriages or stillbirths. Currently, the outbreak investigation is ongoing.

In response to the recent outbreak, the USDA issued an administrative directive outlining additional steps to be taken by USDA Food Safety Inspection Service inspectors to ensure that establishments producing ready-to-eat meat and poultry products are taking the steps necessary to prevent contamination of their products with *Listeria monocytogenes*. The directive will intensify the testing program for some facilities in an attempt to identify contamination in the plant.

Information about listeriosis and other foodborne diseases can be viewed at the NJDHSS website – www.state.nj.us/health

NJDHSS Communicable Disease Service

- Eddy Bresnitz, MD, MS, State Epidemiologist, Assistant Commissioner
- Janet DeGraaf, MPA, Director, Communicable Disease Service
- Christina Tan, MD, Medical Director, Communicable Disease Service
- Suzanne Miro, MPH, Editor, Health Educator, Communicable Disease Service

Confronting Bioterrorism: Preparing NJ's Health Educators

By: Suzanne Miro, MPH, CHES, Communicable Disease Service

During the anthrax attack of 2001 in New Jersey, there was a great need for health education among the postal employees of the Trenton Processing and Distribution Center (PDC) who were potentially exposed to anthrax spores. Trenton PDC employees needed valuable information regarding anthrax as well as the antibiotics recommended for post-exposure prophylaxis. Through a series of health education interventions, highly targeted educational materials were delivered to the postal employees on multiple occasions in order to address their concerns and questions. However, throughout the course of the anthrax outbreak, with so much emphasis placed on the health and safety of the postal employees, the public was overlooked in terms of anthrax education.

From the anthrax experience, it became clear that there is a great need to provide the public with bioterrorism education to help reduce the fear, panic, and misunderstandings that were prevalent at the time. But in order to accomplish this task, New Jersey needs a cadre of health educators that are equipped with the knowledge, skills, and resources to do so.

On October 2 and December 4, 2002 the NJ Department of Health and Senior Services (NJDHSS), in conjunction with the NJ Society for Public Health Education, conducted trainings specifically to prepare New Jersey's health educators in the area of bioterrorism educa-

tion. Nearly 170 health educators attended these full-day training programs. The program focused on providing knowledge of bioterrorism-related weapons and diseases, public health preparedness, emergency responder preparedness, risk communication skills and a case study of educational efforts that took place with the Trenton PDC employees. In addition, participants received a PowerPoint presentation (with script) suitable for use with the public, reproducible handouts, and evaluation materials to help the NJDHSS assess the effectiveness of public education efforts.



Training participants completed pre- and post-tests so that the NJDHSS can have a better idea of how professional health educators viewed this training. Results from the pre/post test revealed that participants' knowledge of bioterrorism-related diseases, public health preparedness, and emergency responder preparedness increased. Additionally, participants indicated that they now feel more confident that they could present public programs on bioterrorism and feel confident they will be able to answer questions from the audience.



This training not only provided attendees with information and materials, but also allowed the NJDHSS to establish connections with health educators statewide.

In the event of a large-scale outbreak or public health emergency, these educators can be mobilized easily to assist in the rapid dissemination of educational materials to the public.

NJDHSS Moves Closer to Electronic Disease Reporting

As the NJDHSS continues its phased implementation of the Computerized Disease Reporting System (CDRS), we encourage public health officials and health care providers to review NJ regulations for reportable diseases and injuries. Accurate and consistent reporting of such diseases will allow NJDHSS to more readily identify and respond to outbreaks, including potential bioterrorist events. However, the ability of CDRS to serve as a surveil-

lance tool relies on YOU and your diligence in reporting. For reporting regulations, please visit the NJDHSS website at www.state.nj.us/health/cd/mdrepdis/pdf.



CDRS will allow paperless electronic reporting of diseases to enhance surveillance

NJDHSS Completes Fourth Year of West Nile Virus Surveillance, Control and Prevention Activities

By: Faye Sorhage, VMD, MPH, Colin Campbell, DVM, Jenish Bhavsar, Sherry Groninger, Infectious & Zoonotic Disease Program

NJDHSS has completed its fourth year of West Nile virus (WNV) surveillance, control and prevention activities. WNV, an arboviral disease, is transmitted through the bite of a mosquito that has picked up the virus by feeding on an infected bird. WNV is not directly transmitted from birds to humans. WNV infection generally causes no symptoms or just mild, flu-like symptoms; however, the elderly are at higher risk of more severe disease.

Between 1999 and 2001, lab testing confirmed WNV infection in 18 New Jersey residents, with two resulting fatalities. The virus has also been detected in mosquitoes, horses, or crows and other birds in every county in New Jersey.

The NJDHSS would like to thank all the local and state agencies who participated in this year's WNV-related activities. New Jersey's WNV surveillance, control and prevention activities involve the coordinated efforts of a number of federal, state and local agencies. These include the New Jersey Departments of Health and Senior Services, Environmental Protection, and Agriculture, the Centers for Disease Control and Prevention, the State Mosquito Control Commission, the Rutgers Mosquito Research and Control Unit, and local health and mosquito control agencies.

The following are the results of WNV surveillance activities for the 2002 mosquito season (updated 12/17/02).

Human Testing

In total, 205 residents have been approved for WNV testing during the 2002 mosquito season. Blood and/or spinal fluid samples from these individuals are in the process of being tested for the presence of WNV. These individuals either had symptoms or signs that met the established WNV testing criteria or exhibited most of the symptoms and are from counties where dead crows and/or mosquitoes with the virus have been discovered.

- To date, 24 are positive, 1 test is pending, 95 are negative, and 52 for which no specimen was submitted for testing.
- Human testing for WNV is being conducted at the New Jersey Department of Health and Senior Services' Public Health and Environmental Laboratory in Trenton and at public health labs in

other states. Testing results are sent to the CDC for confirmation.



Crow, American Kestrel and Other Bird and Small Mammal Testing

To date, 1,064 crows have been accepted for testing by the Department of Health and Senior Services' Public Health and Environmental Laboratory. Of those tested, 798 crows found in 20 counties have been confirmed positive for the presence of WNV. Positive crows have been found in Atlantic (31), Bergen (85), Burlington (61), Camden (26), Cape May (4), Cumberland (19), Essex (9), Gloucester (56), Hunterdon (12), Mercer (43), Middlesex (51), Monmouth (157), Morris (79), Ocean (70), Passaic (25), Salem (18), Somerset (24), Sussex (2), Union (18), and Warren (8) Counties.

The department has also received 778 bird samples (mostly crows) deemed unsatisfactory for testing and has been notified of 1,593 dead or ill birds (mostly crows) not submitted for testing due to their condition.



Mosquito Testing

To date, 9,672 mosquito pools have been tested in the state laboratory for the presence of WNV and 557 pools found in 21 counties have tested positive for WNV. Positive mosquitoes were collected in Atlantic (27) Bergen (132), Burlington (11), Camden (5), Cape May (3), Cumberland (38), Essex (20), Gloucester (24), Hudson (8), Hunterdon (10), Mercer (7), Middlesex (36), Monmouth (54), Morris (36), Ocean (23), Passaic (50), Salem (14), Somerset (23), Sussex (16), Union (11) and Warren (4) Counties.



Horse Testing

Equine testing is conducted by the New Jersey Department of Agriculture's animal health laboratory in Trenton and positive results are sent to the National Veterinary Services Lab (NVSL) in Ames, Iowa for confirmation. For more information, visit the Department of Agriculture website at www.state.nj.us/agriculture.

NJDHSS In the News! Governor Gets Flu Shot to Encourage Vaccinations in NJ



To stress the importance of New Jerseyans getting immunized against the flu and pneumonia, Governor James E. McGreevey received a flu vaccination at a press event.

"I cannot state strongly enough the importance of getting a flu shot, particularly for seniors, persons with diabetes and other chronic conditions," said Gov. McGreevey. "I am getting this shot today to demonstrate the urgent need for New Jerseyans to visit their doctor or take advantage of one of the immunization clinics to get their shot."

The NJDHSS, in conjunction with local health departments throughout the state, has made a listing of flu immunization clinic dates, times and locations available on its website at www.state.nj.us/health/flu, at PRONJ's Health Hotline at 1-866-269-4325 or by calling NJEASE at 1-877-222-3737. Seniors, persons with diabetes and other high-risk state residents interested in getting an annual flu shot or a once-a-lifetime pneumococcal vaccination can visit the site from their home computer or a computer available to the public in most libraries.

The website database is updated on a regular basis and is searchable by county and by town. In addition to listing the times and locations of clinics, the site also details the various requirements and restrictions imposed by clinic sponsor agencies. Some, for instance, are limited to senior citizens and adults with disabilities, while others will vaccinate younger adults. The site also identifies which

clinics offer the pneumococcal vaccine.

Influenza is a serious illness that causes symptoms including fever, aches and pains, sore throat, runny nose, and chills. When people over 65 or those with chronic health problems, such as diabetes, get the flu, they are more likely to develop complications which can lead to hospitalization and a loss of independence. Flu and pneumonia account for more than 2,000 deaths of New Jersey residents each year.

In addition to the flu vaccine, which must be given each year to cover the strains that may be prevalent that year, a different and longer-lasting vaccine is available which offers protection against pneumococcal bacterial diseases and is also recommended for seniors and other high-risk groups. Seniors are encouraged to seek these important vaccinations from their doctor as part of a well-person visit, or at one of the scheduled adult immunization clinics in their area.

The influenza and pneumococcal vaccines are both covered by Medicare and Medicaid, which reimburse health care providers directly for immunizing eligible seniors. In addition, New Jersey requires long-term care facilities and hospitals to offer influenza and pneumococcal vaccinations to senior citizen residents and patients, respectively.

NJDHSS Employment Opportunities

For more information regarding the following positions, please contact Gail Zoerner, (609) 588-7500. NJDHSS, Communicable Disease Service, PO Box 369, Trenton, NJ 08625-0369.

- **Research Scientist 2—Health Educator—Bioterrorism Program**

- **Public Health Consultant 1—STD Health Educator**

Shigellosis Among Burlington, Camden, and Mercer County Residents, February–December 2002

By: Barbara Piepszak, RN, Trenton Health Dept., Barbara Gibson, MD, Burlington County Health Dept., and Lisa McHugh, Camden County Health Dept.

During mid-February to May 22, 2002, the Trenton Department of Health identified 22 cases of *Shigella sonnei* infection, confirmed by stool specimens positive for the bacteria. Illness onset ranged from February 13 to May 13, with the largest occurrence of cases in April and May. Nine of the 22 cases were hospitalized, and three were sent to the hospital emergency room for evaluation and released; no deaths have been reported. Eighteen of the cases occurred among children (mean and median age = 6 years; range: 2-15 years), and 5 occurred among adults (mean age 33 years; median age 27 years; range: 20-67 years). All cases resided in Trenton, except for one in Hamilton and one in Ewing. The Hamilton and Ewing Health Departments were alerted of this illness cluster. In addition, the health department in Morrisville, Pennsylvania, was also notified. One case worked and one case attended school in Morrisville).

Since this initial identification, as of December 17, 2002, the Burlington, Camden and Trenton health departments have identified a total of 682 laboratory-confirmed cases, and 189 probable cases (based on clinical symptoms and association with laboratory-confirmed cases). Of these 871 confirmed and probable case-patients, 97 (14%) were hospitalized and 116 (13%) sought emergency room evaluation. No deaths have been reported. The median age of case-patients is 5 years (range: <1 - 80 years). The most recent onset of a confirmed case is December 12, 2002 (See Table 1: Breakdown by County, page 6).

Of the positive samples, the NJ Public Health and Environmental Laboratory (NJPHLE) has identified resistance patterns: 3 isolates were resistant to the antibiotic trimethoprim-sulfamethoxazole (Bactrim), and 2 isolates were resistant to ampicillin, ampicillin/sulbactam and piperacillin. Pulsed-field gel electrophoresis was performed on these resistant strains and on the originally identified pan-sensitive strain; all these isolates have indistinguishable patterns. The identification of the resistant strains should be a reminder to physicians and patients to use antibiotics as directed and to complete antibiotics for the duration they are prescribed.

The county and local health departments, in consultation with the New Jersey Department of Health and Senior Services (NJDHSS), had implemented numerous public health interventions, including:

- Press releases
 - Newspapers
 - TV
- Health education from public health nurses to all 52 daycare centers, including:
 - In-service to daycare center staff
 - Review of guidelines for exclusion of children and of employees (including food handlers)
 - Availability for Q & A by daycare staff
 - Checks on hand-washing facilities
 - Distribution of hand-washing flyers
 - Encouragement of cohorting case-patients
 - “Checklists” for physicians, sent home to families
 - Health alerts distributed to families
 - Direct observation of children’s hand-washing
- Health advisory postings for public pools
- Health advisories (containing preventive measures and information on shigellosis) in English and Spanish
 - Mailed to 250 family daycare providers who care for children in their own homes
 - Distributed to:
 - WIC clinics
 - Community health centers
 - Adult Health Clinic
- Physicians’ health alerts (technical information on shigellosis and public health prevention recommendations) to pediatricians and family practitioners
- Health alerts to school administrators



Continued on Page 6....

Our Mission

The mission of the Division of Epidemiology, Environmental and Occupational Health is to protect the citizens of the State and the visiting public from hazards found in the environment, home, and workplace through appropriate surveillance, intervention, education, and outreach.

NJ Department of Health & Senior
Services
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The NJDHSS Communicable Disease Service Includes:

- Infectious & Zoonotic Disease Program
- Vaccine Preventable Disease Program
- Sexually Transmitted Disease Program
- Tuberculosis Program

NJDHSS Welcomes New Employees!!

Floyd Borden—GIS Project Manager. Floyd is responsible for managing the West Nile virus GIS data system to enhance surveillance efforts.

Kari Ann Molnar—Senior Clerk Typist. Kari Ann is responsible for providing administrative assistance to the immunization program.

Thomas Privett—Thomas is a Senior Public Health Analyst with the CDC and has been assigned to work in NJ as the Program Manager for the tuberculosis program.

Suoquin Liu—Bioterrorism Surveillance. Suoquin is responsible for the collection and analysis of bioterrorism related disease data and for issuing appropriate public health alerts.

Bonnie Wiseman—Executive Assistant. Bonnie will fill the role of Executive Assistant in the office of Eddy Bresnitz, MD, MS, State Epidemiologist/Assistant Commissioner

Shigellosis continued from page 5, Probable and Confirmed Cases by County, February—December 2002

	Confirmed	Probable	Median age (range)	Hospitalized	ED visit	Most recent illness onset date
Burlington	133	38	5 (<1 – 75)	12	3	11/17/02
Camden	55	4	5 (<1 – 80)	8	16	12/12/02
Mercer	494	147	5 (<1 – 79)	77	97	12/1/02
Total	682	189		97	116	